DLOUHA, H.; KRECEK, J.; KRECKOVA, J.

Role of the adrenals and of the pituitary in changes of renal reactivity to water load in young rats during weaning. Cesk. fysiol. 7 no.5:442-443 Sept 58..

1. Fysiologicky ustav CSAV, Praha.
(KIDNEYS, physiol.
eff. of ACTH & cortisone on reactivity to water load in rats during weaning (Rus))
(ACTH, eff.
on kidney reactivity to water load in rats during weaning (Rus))
(CORTISONE, effects,
same)

KRECEK, J.; DLOUHA, H.; KRECKOVA, J.

Changes of renal reactivity to vasopressin in young rats during weaning.
Cesk. fysiol. 7 no.5:496-497 Sept 58.

1. Fysiologicky ustav CSAV, Praha.
(VASOPRESSIN, effects,
on kidneys, changes of reactivity during weaning (Cz))
(LACTATION, physiology,
renal reactivity changes to vasopressin during weaning in rats
(Cz))

DLOUHA, H.; KRECEK, J.; KRECKOVA, J.

Effect of STH on excretion of water and sodium in young rats. Cesk. fysiol. 8 no.3:178-179 Apr 59.

1. Fysiologicky ustav CSAV, Praha. Predneseno na III. fysiologickych dnech v Brne dne 15. 1. 1959.

(SOMOTOTROPIN, eff.
on urinary water-sodium concentration in young rats (Cz))
(URINE,
eff. of somatotropin on concentration in young rats (Cz))
(SODIUM, in urine,
eff. of somatotropin in young rats (Cz))

KRECEK, J.; DLOUHA, H.; KRECKOVA, J.

Effect of vasopressin on renal function in isotonic diuresis in weaned rats. Cesk. fysiol. 8 no.3:216-217 Apr 59.

1. Fysiologicky ustav CSAV, Praha. Predneseno na III. fysiologickych dnech v Brne dne 15. 1. 1959.
(VASOPRESSIN, eff.
on kidney funct. in isotonic diuresis in weaned rats (Cz))

KRECEK, J.; DLOUHA, H.; KRECKOVA, J.

On the effect of antidiuretic hormone on the excretion of urea in young rats during weaning. Cesk. fysiol. 9 no.1:32-33 Ja 60.

1. Fysiologicky ustav CSAV, Praha.
(VASOPRESSIN pharmacol.)
(UREA urine)
(BREAST FEEDING)

DLOUHA, H.;KRECEK, J.;KRECKOVA, J.

Role of sex hormones in the regulation of active intake of water and electrolytes. Cesk. fysiol. 8 no.5:399 S '59

1. Fysiologicky ustav CSAV, Praha.
(WATER ELECTROLYTE BALANCE)
(CASTRATION eff.)

NOVAKOVA, V.; DLOUHA, H.

Effect of spreading afferent signalization to the central nervous system to the intake and excretion of water in rats. Cesk. fysiol. 8 no.5:423-425 S '59

1. Fysiologicky ustav CSAV, Praha.
(BRAIN physiol.)
(URINATION physiol.)
(WATER)

DLOUHA, H.; KRECEK, J.

Effect of the irritation of the splanchnic nerve on the visceral monosynaptic arch. Cesk.fysiol. 9 no.3:225-226 My '60.

1. Fysiologicky ustav CSAV, Praha.
(REFLEX)
(SYMPATHETIC NERVOUS SYSTEM physiol)

KRECEK,J.; DLOUHA, H.; KRECKOVA, J.

On the problem of the excretion of urea by the tubular part of the nephron. Cesk.fysiol. 9 no.3:244-245 My '60.

1. Fysiologicky ustav CSAV Praha.
(UREA urine)
(KIDNEYS physiol)

KRECKOVA, J.; DLOUHA, J.; KRECEK, J.

Effect of vasopressin on urea excretion in diuresis produced by isotonic NaCl solution. Cesk.fysiol. 9 no.3:245-246 My '60.

1. Fysiologicky ustav CSAV, Praha.
(VASOPRESSIN pharmacol)
(UREA urine)
(ISOTONIC SOLUTIONS pharmacol)
(DIURESIS)

DLOUHA, H.; KRECEK, J.; KRECKOVA, J.

Water diuresis and the effect of vasopressin in infant rats. Physiol. Bohemoslov. 12 no.5:443-452 '63.

1. Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

(VASOPRESSIN) (DIURESIS) (WATER)
(NATRIURESIS) (SODIUM CHLORIDE)

DLOUHA, H.; KRAUS,M.; KRECEK,J.; PLISKA,V.

Sensitivity of rats to vasopressin in the weaning period.
Physiol. Bohemoslov. 14 no.3:217-224 '65.

1. Institute of Physiology and Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

DLOUHA, H.

A comparison of the antidiuretic and pressor effects of vasopressin in infant and adult rats. Physiol. Bohemoslov. 14 no.3: 225-227 '65

1. Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

DLOUHA, J.

"Superconductivity and its use, cryotron."

POKROKY MATEMATIKY, FYSIKY A ASTRONOMIE, Praha, Czechoslovakia, Vol. 4, no. 2, 1959

Monthly List of EAST EUROPEAN ACCESSIONS INDEX (EEAI), LC, Vol. 8, No. 7, July, 1959

Unclassified

DLOUHA, Jarmila

Mossbauer effect. Cs cas fys 14 no.3:222-246 '64.

1. Chair of Theoretical Physics, Charles University, Prague.

DLOUHA, J.

The influence of pressure on the Mossbauer effect. Chekhosl. fiz zhur 14 no.8:570-579 '64

The Mossbauer effect in the points of phase transitions. Ibid.: 580-585

1. Faculty of Mathematics and Physics, Charles University, Prague 2, Ke Karlovu 3.

POKORNY, Jan; KOPECKY, Antonin; DLOUHA, Jirina

Cane wax as cosmetic raw material. Prum potravin 14 no.11: 579-580,612 N'63.

1. Vysoka skola chemickotechnologicka, katedra chemie a zkouseni potravin, Praha (for Pokorny). 2. Sdruzeni tukoveho prumyslu, Vyzkumny ustav pro tuky a oleje, Praha (for Kopecky and Dlouha).

L 20438-66 EWT(m) DIAAP

ACC NR: AP6000661 SOURCE CODE: CZ/0055/65/015/009/0686/0695

AUTHOR: Dlouha, J.; Rohlena, K.

ORG: Faculty of Mathematics and Physics, Charles University, Prague; now Institute of Physics, Czechoslovak Academy of Sciences, Prague

TITLE: Resonance absorption of gamma quanta in one- and two-dimensional crystals

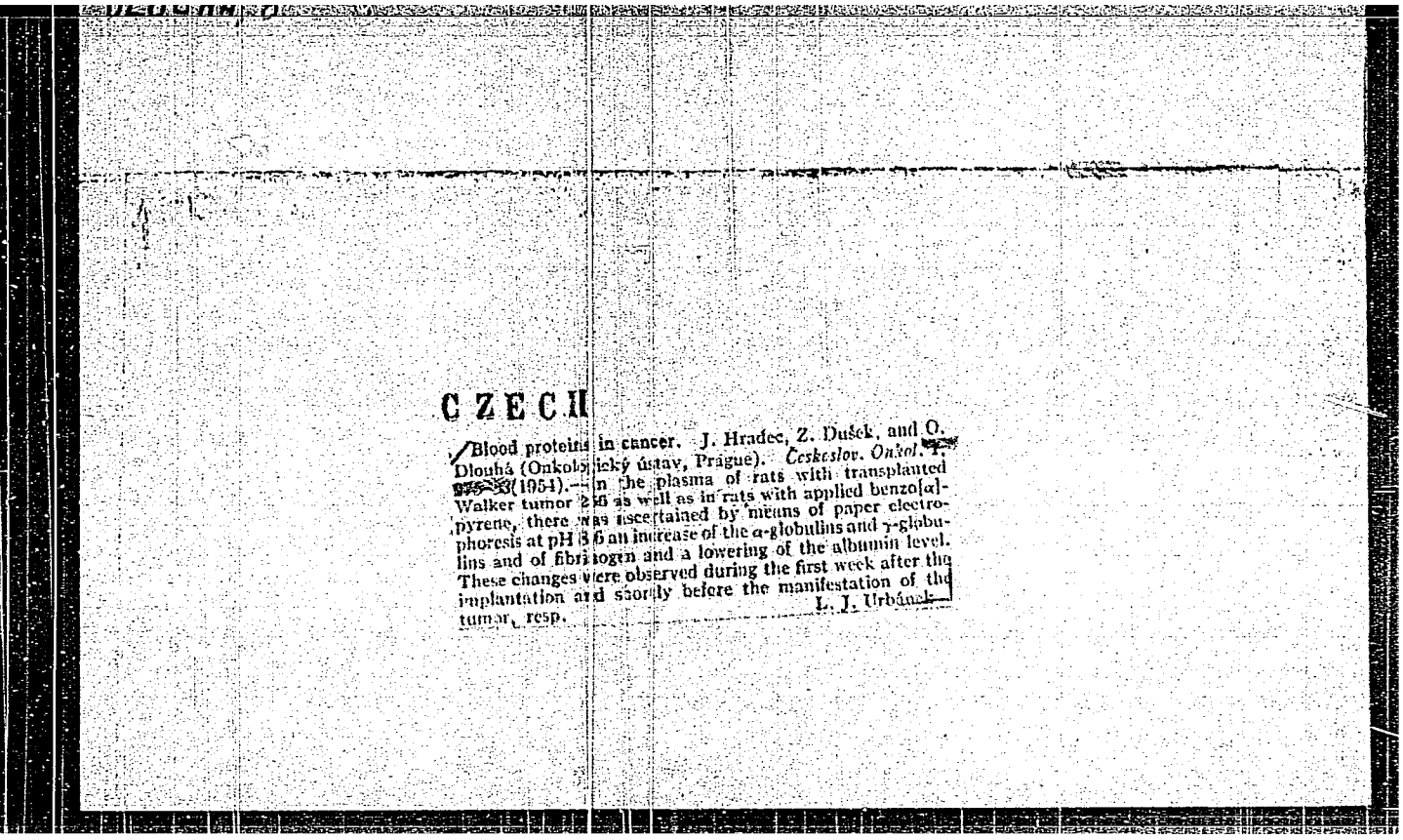
SOURCE: Chekhoslovatskiy fizicheskiy zhurnal v. 15, no. 9, 1965, 686-695

TOPIC TAGS: resonance absorption, single crystal, crystal structure, gamma quantum, resonance line, gamma ray, Mossbauer effect

ABSTRACT: The resonance absorption of gamma-quanta in one- and two-dimensional crystals was investigated. The form of the resonance lines was determined and the question of the possibility of the existence of the Mossbauer effect in such a model was analyzed. It was found that for one dimensional crystals the Mossbauer effect is zero with the exception of the case of perpendicular incidence of gamma rays on the linear chain. Also for two dimensional crystals this effect would be possible only at absolute zero. The authors thank Dr. C. Muzikar for suggesting the work and for many discussions. Orig. art. has: 5 figures and 15 formulas. [Based on authors' abstract.] [NT]

SUB CODE: 20/ SUBM DATE: 03Feb65/ ORIG REF: 001/ OTH REF: 004/ SOV REF: 002/

Card 1/1 UDC



CZECH

Blood proteins in cancer. J. Hradec, Z. Dušek, and O. Dlouhá (Onkologický ústav, Prague). *Československ. Onkol.* 1, 33 (1954).—In the plasma of rats with transplanted Walker tumor 256 as well as in rats with applied benzo[*a*]pyrene, there was ascertained by means of paper electrophoresis at pH 8.6 an increase of the α-globulins and γ-globulins and of fibrinogen and a lowering of the albumin level. These changes were observed during the first week after the implantation and shortly before the manifestation of the tumor, resp. L. J. Urbánek

KEIL, B.; MORAVEK, J.; DLOUHA, V.; FILIP, J.

On proteins. Part 75: Desulfuration and hyrogenation of amino acids by using tritium. Coll Cz Chem 27 no.7:1687-1691 Jl '62.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences and Institute for Research, Production and Utilization of Radioisotopes, Prague.

DLOUHY, A.

TECHNOLOGY

Periodicals: JADERNA ENERGIE Vol. 4, No. 12, Dec. 1958

DLOUHY, A: MALY, J. Kinetics of adsorption of radiosotope mixtures on surfaces. p.387

Monthly List of East European Accessions (EEAI) LC Vol. 8, No. 5 May 1959, Unclass.

DLUGIY, Boguslav [Dlouhy, Bohuslav], inzh. (Praga)

Laying a water conduit made of asbestos-cement pipes.
Vod. i san. tekh., no.8:35-36 Ag '62. (MIRA 15:9)
(Pipe, Asbestos-cement)
(Kadan, Czechoslovakia--Water pipes)

L 10604-65 EWT(1)/EEC(t) IJP(c)/RAEM(a)/AS(mp)-2/AFWL/SSD/ESD(gs)/ESD(t)/AEDC(a)

ACCESSION NR: AP4044591 Z/0055/64/014/008/0570/0579

AUTHOR: Dlouha, J.

TITLE: The influence of pressure on the Mossbauer effect

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 8, 1964, 570-579

TOPIC TAGS: Mossbauer effect, pressure effect, compressed crystal spectroscopy, Mossbauer line intensity

ABSTRACT: The effect of pressure on the intensity of the Mossbauer line (the probability of the Mossbauer effect) and on shifts in the position of the center of the line was investigated theoretically. The study was based on the idea that changes in specific volume of a crystal are reflected in its frequency spectrum. The difficulties involved in calculating such frequency spectra were overcome approximately by using the Grueisen approximation. The temperature dependence of the intensity of the Mossbauer line in a one-atom crystal with a simple cubic lattice is used to show that the effect of changes in specific volume on the line intensity can be converted,

Card 1/3

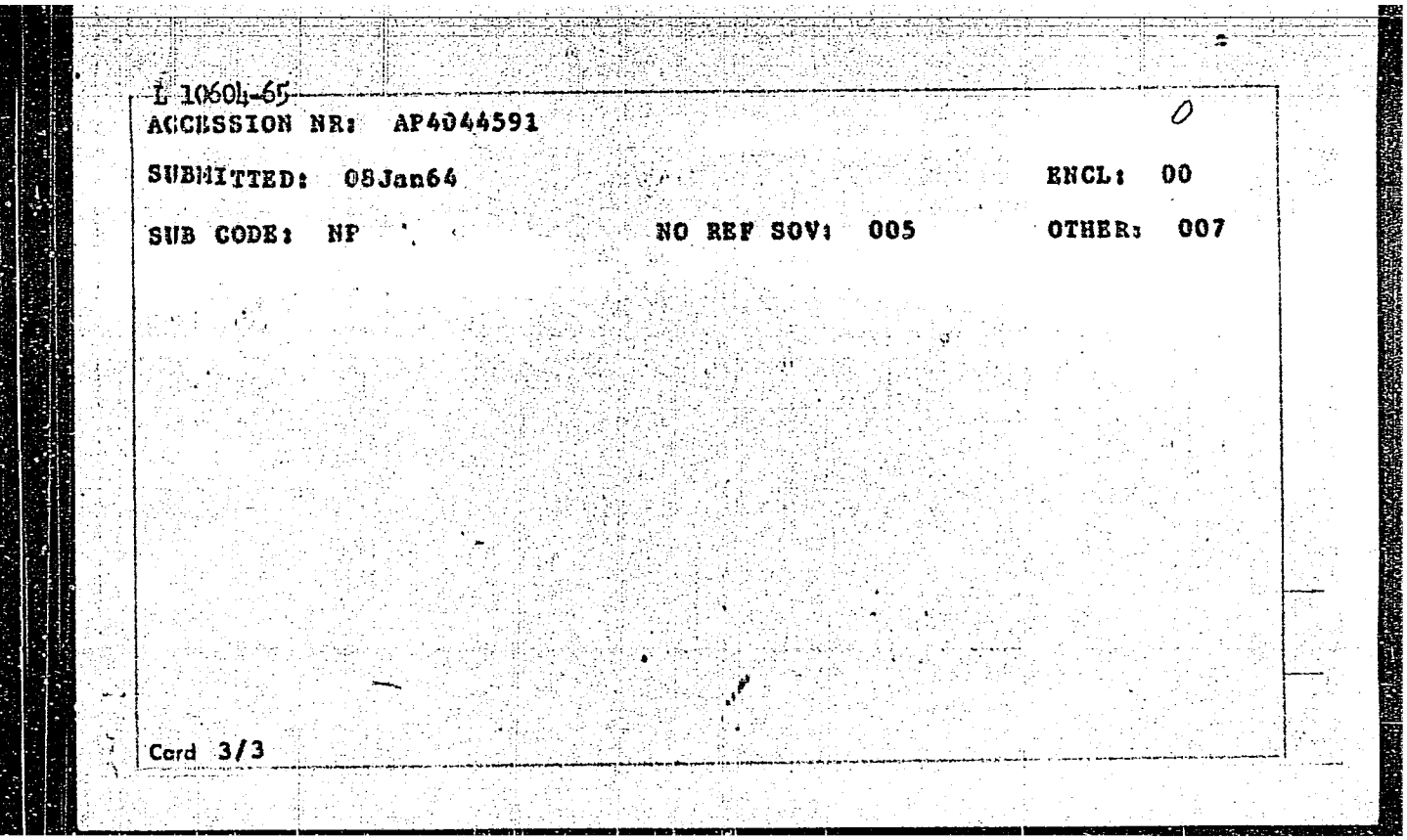
L 10614-65

ACCESSION NR: AP4044591

except for a multiplication factor, to mere changes in temperature (assuming that it is sufficient to consider interactions between nearest neighbors). It was then shown that the total change in the energy shift of the Mossbauer line with a change in specific volume depends little on the temperature. The relations derived for one-atom crystals (the previous case) were shown to be valid, to a rough approximation, for crystals with regular crystal lattices and an arbitrary number of atoms in the unit cell. The line intensity can be increased by using high pressures (enough to cause a change of 5% in specific volume), and the use of such pressures would extend the temperature interval in which the Mossbauer line is readily observable by about 25%. This would be most significant in materials with low Debye temperature. Analysis of the Gruneisen approximation indicates that it is a useful approximation for studying the Mossbauer effect and that quantitative agreement with experiment can be expected for solids with homeopolar bonds and materials with simple, regular ionic lattices. Orig. art. has: 4 figures.

ASSOCIATION: Mathematico-Physical Faculty, Charles University, Prague

Card 2/3



L 10604-65

ACCESSION NR: AP4044591 0

SUBMITTED: 08Jan64 ENCL: 00

SUB CODE: NP NO REF SOV: 005 OTHER: 007

Card 3/3

BR

ACCESSION NR: AP4044592 Z/0055/64/014/008/0580/0585

AUTHOR: Dlouha, J.

TITLE: The Mossbauer effect at phase transition points

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 14, no. 8, 1964, 580-585

TOPIC TAGS: Mossbauer effect, temperature effect, phase transition spectroscopy, phase transition localization

ABSTRACT: The temperature dependence of the intensity of the Mossbauer line and shifts of its center on passing through phase transition points were studied. Both quantities show a discontinuity at transitions of the first kind (discontinuous change in the frequency spectrum of the crystal), but only a shift of the line center appears at transitions of the second kind (isomeric shift). Shifts of the line center of Fe^{57} in metallic iron at 1200K and measurements of the Mossbauer line intensity in experiments with Sn^{119} are cited. These results indicate that the high accuracy of the Mossbauer effect (particularly the position of the Mossbauer line center) would permit its

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ACCESSION NR: AP4044592

use for exact localization of phase transitions. In addition, comparisons of results obtained from measurements of the intensity of the Mossbauer line and of shifts of its center (combined with measurements of the pressure coefficient of the Mossbauer effect in the same materials at temperatures near those of phase transitions) with measurements of specific heats would make it possible to obtain valuable data on the behavior of elastic constants at phase transitions.

ASSOCIATION: Mathematico-Physical Faculty, Charles University, Prague

SUBMITTED: 08Jan64 ENCL: 00

SUB CODE: NP,OP NO REF SOV: 003 OTHER: 010

Card 2/2

DLOUHA,V.; KEIL,B.; SORM,F.

On proteins. Pt.85. Coll Cz Chem 28 no.11:2969-2976 N'63.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague.

DLOUHA, V.; KELL, B.; SORM, F.

Structure of the peptides isolated from the tryptic hydrolysate of the chain of edestin. Coll Cz chem 29 no.8:1835-1850 Ag '64.

1. Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague. 2. Chairman, Advisory Board, "Collection of Czechoslovak Chemical Communications" (for Sorm).

CZECHOSLOVAKIA

ILOUHA, V; POSPISILOVA, D; MELOUN, B; SORM, F

Institute of Organic Chemistry and Biochemistry, Czechoslovak Academy of Sciences, Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 1, January 1966, pp 346-352

"On proteins. Part 100: Disulfide bonds of basic trypsin inhibitor from beef pancreas."

L 33542-66

ACC NR: AP6023472 SOURCE CODE: CZ/0038/66/000/003/0088/0092

AUTHOR: Dlouhy, Frantisek; Bortlik, Jiri

ORG: Energoprojekt, Prague

TITLE: Utilization of nuclear sources in district heating

SOURCE: Jaderna energie, no. 3, 1966, 88-92

TOPIC TAGS: nuclear reactor power, heating engineering, thermal reactor

ABSTRACT: The general questions connected with the utilization of nuclear reactors in district heating are shown. Separate sections of the work were devoted to the problems of positioning the nuclear district heating installations, delivery of heat to the consumer, and economic questions. The advantages and disadvantages of district heating by nuclear installations in comparison with heating installations using conventional fuels were reported. The design of the basic thermal circuit of nuclear district heating power plants was given. A list of the present nuclear sources for district heating is reported. The paper was presented by J. Vlach. Orig. art. has: 2 figures. [NA]

SUB CODE: 13, 18 / SUBM DATE: none / ORIG REF: 005 / SOV REF: 002
OTH REF: 007

Card 1/1

UDC: 621.039.576

L 37250-66 EWT(m)

ACC NR: AP6027866 SOURCE CODE: CZ/0038/66/000/003/0088/0092

32
B

AUTHOR: Dlouhy, Frantisek--Dlougi, F.; Bortlik, Jiri--Bortlik, Y.

ORG: Energoprojekt, Prague

TITLE: Questions and problems in the utilization of a nuclear source in centralized heating system engineering

SOURCE: Jaderna energie, no. 3, 1966, 88-92

TOPIC TAGS: heating engineering, nuclear reactor technology, nuclear reactor power

ABSTRACT: The article examines general questions connected with the utilization of nuclear reactors in centralized heating system engineering -- the placement of the nuclear equipment, the delivery of heat to the user, and economic questions. The advantages and disadvantages of the use of nuclear equipment are discussed. Designs of such nuclear equipment are presented, and cases of this application to date are listed. This paper was presented by J. Vlach. Orig. art. has: 2 figures. [JPRS: 36,845]

SUB CODE: 13, 18 / SUBM DATE: none / ORIG REF: 005 / SOV REF: 002
OTH REF: 008

Card 1/1 UDC: 621.039.576

0917 1379

DLOUHY, J.

"Scientific Profile of Rudjer Josip Boskovic", P. 44, (KARTOGRAFICKY PREHLED, Vol. 7(i. e. 8), No. 1, Mar. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

DLOUHY, J.

"Jindrich Metelka; a Contribution to the History of Czech Geography." p. 151, (KARTOGRAFICKY PREHLED, Vol. 8, No. 4, Dec. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4 No. 5, May 1955, Uncl.

DLOUHY, J.

Heating ingots and semifinished products; loss by burning during heating. p. 69. HUTNIK. (Ministerstvo hutniho prumyslu a rudnych dolu) Praha. Vol. 5, No. 3, Mar. 1955

SOURCE: East European Accessions List (EEAL), Library of Congress, Vol. 4, No. 12, December 1955.

DLOUHY, J.

Production and use of bricks and blocks in building. p. 109. POZEMNI STAVBY. (Ministerstvo stavebnictvi) Praha. Vol. 3, no. 3, Mar. 1955.

SOURCE: East European Accessions List (EEAL), Library of Congress, Vol. 4, No. 12, December 1955.

DLOUHY, Josef

Lighting of railroad stations. Zel dop tech 9 no.12:358-360 '61.

DLOUHY, J.

Electric heating of railway switches. Zel dop tech 10 no. 3:76-77. '62.

ACCESSION NR: AP5001732 Z/0040/64/000/012/0366/0367

AUTHOR: Dlouhy, J.; Fabera, J. (Engineer)

B

TITLE: Progress in constructing the new Ruzyne airport

SOURCE: Letecky obzor, no. 12, 1964, 366-367

TOPIC TAGS: airport construction, hangar construction, construction planning

ABSTRACT: Earthwork for the new repairshop hangar at Prague Ruzyne airport began in the spring of 1963, but work on the heavy foundations for the 18 reinforced concrete frames to support the steel roof structure was interrupted by lack of material and then by severe weather. Only 3 frames were completed by January 7, 1964 instead of 9, and the new schedule called for all 18 to be up by Nov. 11, 1964. The Kralovopolske strojirny (Kralovopolske Machine Works) in Brno have already delivered and are now assembling the steel section of the roof structure, but there is no hope that the hangar will be complete before the end of 1966. The new passenger building is the second major project and concrete foundations plus the floor over the basement were completed at the end of June, 1964. The whole reinforced concrete skeleton for the central section of the building is scheduled for completion in 1964. Military Constructions, as the general contractor, and

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ACCESSION NR: AP5001732

the Vojensky projektovy ustav (Military Planning Institute), as well as the State Aviation Administration, are faced with great problems due to the shortage of qualified building experts and skilled labor, as well as the lack of machinery for concrete and other construction work. The upper four floors in the central block will not be concreted by the end of the year in spite of arrangements being made for a new type of electric heating. This will leave very little time for interior finishing and artistic ornamentation if the building is to be opened by the middle of 1967, as the government has ordered. Orig. art. has: 3 photographs.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: IE, GO

NO REF SOV: 000 OTHER: 000

Card 2/2

DLOUHY, Josef

Examination of physical and chemical measurement methods and their application. Jaderna energie 8 no.12:432-433 '62.

DLOUHY, K.

The L 13 "Blanik" glider. p. 149. (Kridla Vlasti, No. 5, Mar 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

DLOUHY, K.

The flight properties and effectiveness of the Blanik glider. p. 281.
(Kridla Vlasti, No. 9, Apr 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

DLOUHY, K.

The Paris Aeronautic Exhibition through the eyes of an engineer.

P. 502, (Kridla Vlasti) No. 16, Aug. 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

DLOUHY, Karel, inz.

An aeroplane for local airlines. Letecky obzor 6 no.3:66-69 '62.

DRUHY, M.

Strength of sintered carbides. p. 43

STROJERENSTVI (Ministerstvo tezkeho strojirenstvi, Ministerstvo presneho strojirenstvi a Ministerstvo automobiloveho prumyslu a zemedeskych stroju)
Praha, Czechoslavakia
Vol. 9, no. 1, Jan. 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, no. 7
July 1959
Uncl.

DLOUHY, M.

Chip forming. p. 605

STROJIRENSTVI (Ministerstvo tezkeho strojirenstvi, Ministerstvo vseobecneho strojirenstvi) Praha, Czechoslovakia, Vol. 9, no. 8, Aug. 1959

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 2, Feb. 1960

Uncl.

AUTHOR: Dlouhý, M., Engineer CZECH/34-59-8-8/16

TITLE: Bending Strength of Sintered Carbides at Elevated Temperatures

PERIODICAL: Hutnické listy, 1959, Nr 8, pp 692 - 695

ABSTRACT: J. Himmlber (Ref 1) arrived at the conclusion that the drop in strength compared with that at normal temperature is much greater for TT4-type carbides with a high Co and low TiC content than it is for carbides with high TiC contents. Most authors considered solely the influence of the temperature on the bending strength. Only G.S. Kreimer et al (Ref 2) have carried out a detailed analysis in which they also took into consideration the influence of the grain size on the bending strength of sintered carbides at elevated temperatures. In this paper, the author describes equipment, developed by himself, for testing the bending strength of sintered carbides in the temperature range 20 to 900 °C and also some tests carried out by means of this equipment. The results, entered in Tables 1 and 2 and graphed in Figure 4, indicate that the differences in

 strength of individual types of the S series sintered

Bending Strength of Sintered Carbides at Elevated Temperatures

carbides decrease with increasing temperature and at about 900 °C the strengths of the types S1 to S4 carbides are approximately identical. Whilst the bending strength of the carbide S1 at 900 °C is about 27% below its original value, the drop for the carbide S4 is 46%. With increasing temperature, the bending strength of all carbides increases at first slightly, reaching the maximum value at about 200 °C. There are 5 figures, 2 tables and 4 references, of which 2 are German, 1 Czech and 1 English.

ASSOCIATION: VÚOSO, Prague

SUBMITTED: March 18, 1959

Card 2/2

DLOUHY, M.

Design for self-adjusting chip former. p. 671.

STROJIRENSTVI. (Ministerstvo tezkeho strojirenstvi, Ministerstvo presneho strojirenstvi a Ministerstvo automobiloveho prumyslu a zemedelskych stroju) Praha, Czechoslovakia, Vol. 9, no. 9, Sept. 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 9, no. 1, Jan, 1960

Uncl.

DLOUHY, M.

Bending strength of sentered carbides at elevated temperatures. p. 692.

HUTNICKE LISTY, Brno, Czechoslovakia, Vol. 14, no. 8, Aug. 1959

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 10,
Oct. 1959
Uncl.

DLOUHY, M., inz.

Tools with self-adjusting chip shaper. Stroj vyr 9 no.7:377 '61

1. Vyzkumny ustav obrabecich stroju a obrabeni, Praha.

Z/032/61/011/002/005/013
E073/E335

AUTHORS: Houdek, J., Engineer and Dlouhý, M., Candidate of Technical Sciences, Engineer

TITLE: Toughness of Concentrated Carbides and Its Measurement

PERIODICAL: Strojírenství, 1961, Vol. 11, No. 2, pp. 126 - 132

TEXT: The most reliable and convenient method for evaluating tungsten carbides are machining tests. However, such tests are laborious and expensive and they do not provide information on the resistance to mechanical stresses, thermal shocks, etc. The most suitable criterion for evaluating the quality of tungsten carbides in addition to their cutting properties would be the toughness. However, this term has so far not been clearly defined and there is no method for determining it. The authors propose a method based on indenting a polished carbide ball into the plate to be tested, the surface of which is lapped. This method was originally developed by Messrs. Wickmann (New Cutting Steel: 1957, Mass Production 33, No. 2). The force

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Z/032/61/011/002/005/013
E073/E335

Toughness of Concentrated Carbides and Its Measurement

P applied to the ball is gradually increased, the surface layer becomes plastically deformed and an indentation in the shape of a spherical cup is formed, the diameter D of which gradually increases in proportion to increasing P. Gradually cracks will appear at the edges; the tougher the carbide the greater the force required for damaging the edges and the larger will be the diameter of the indentation. On the basis of numerous tests it was found that the optimum speed of indentation of the ball is 10 kg/sec. The pressure is maintained for 10 sec after reaching the desired value. Depending on the carbide tested pressures varying between 20 kg and 70 kg are applied. The load or the diameter of the indentation for which the first cracks occur will be proportional to the toughness of the tested carbide specimen. This will be designated as limit load and limit diameter (P_{lim} and D_{lim}). In brittle carbides, well pronounced cracks occur at a certain distance from the edge of the

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Z/032/61/011/002/005/013
E073/E335

Toughness of Concentrated Carbides and Its Measurement

indentation. In tough carbides the cracks are nearer to the edge of the indentation; frequently, they run straight along the edge and are less pronounced. To be able to distinguish the cracks better, the surface has to be lapped by means of a cast-iron disc with diamond paste of 1-2 μ grain size. The limit load varies between 200 and 900 kg, the limit indentation diameter is between 0.5 and 1 mm. The toughness tests were carried out in a tensile test machine by means of improvised equipment. The ball used was of 5 ± 0.01 mm dia. The loading speed was 9-11 kg/sec. The formation of cracks was observed by means of a metallographic microscope with 100X magnification. As a criterion of the toughness, the energy expended on making the indentation of diameter D_{lim} is taken as a measure of toughness since this is considered to be approximately proportional to the volume of the indentation. The pertaining force relations can be determined by means of the Hertz law.

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Z/032/61/011/002/005/013
E073/E335

Toughness of Concentrated Carbides and Its Measurement

The relation between the indentation force and the diameter of the indent can be expressed as follows:

$$P = aD^n \qquad (10)$$

where a and n are constants for a given type of tungsten carbide. It was determined by statistical analysis that the limit diameter of the indent can be established with an accuracy of $\pm$ 5.7% with 95% probability; the limit loading can be measured with an accuracy of $\pm$ 17% with 95% probability. The values of a and n were determined experimentally for 5 types of Czech-produced tungsten carbides. Following that, the experimentally determined relations $P = \varphi(D)$ were applied for calculating toughness criteria, i.e. the amount of required deformation work:

$$A = \int_0^{t_m} P \, dt \qquad (17) .$$

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Z/032/61/011/002/005/013
E073/E335

Toughness of Concentrated Carbides and Its Measurement

Since A is of the order of thousands of kg u , the authors have chosen a value one hundred times less, designating it as A_m . Thus, the authors choose as a toughness criterion the mechanical energy which has to be expended for producing an indentation with diameter D_{lim} . In these calculations it is assumed that the established relations between P and D are valid with sufficient accuracy for all the carbides of a given type. During indentation the temperature is basically the room temperature. The loading speed has some influence and therefore it is considered advisable to use a loading speed of about 10 kg/sec, which proved to be the optimum one. It is stated in the conclusions that the indentation method of testing toughness is applicable for reliable determination of the toughness of various types of carbides and also of the differences in toughness obtained for individual heats of the same type of material. In a table the maximum permissible feeds of carbides of the

Z/032/61/011/002/005/013
E073/E335

Toughness of Concentrated Carbides and Its Measurement

S-series (manufacturer's recommendations) are compared with the average values of the bending strength σ_o and the toughness number A_m. For greater clarity, relative values are also given for p_{Am}, p_s, p_σ, indicating how many times the appropriate maximum feed (p_s), bending strength (p_σ) and toughness are higher than the appropriate values for the carbide S1. For instance, for the carbide S3 the maximum permissible feed is 330% higher than for S1, although its bending strength is only 9% higher. On the other hand, its toughness number A_m is 336% higher, which is commensurate with the maximum permissible feed for this type of carbide. This proves that the results obtained by indentation characterise satisfactorily the mechanical strength of tungsten carbides.

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Z/032/61/011/002/005/013
E073/E335

Toughness of Concentrated Carbides and Its Measurement

Tungsten Carbide type	Max. permissible feed, s(mm/rev)	p_s	Bend. strength σ_o (kg/mm^2)	p_σ	Toughness number $A_m \cdot 10^2$ (kg μ)	p_{Am}
S1	0.6	1	110	1	20.0	1
S2	1.0	1.66	115	1.04	36.5	1.83
S3	2.0	3.33	120	1.09	67.2	3.36
S4	2.5	4.17	130	1.18	94.7	4.73
S5	4	6.66	150	1.37	193	7.60

There are 8 figures, 1 table and 6 references: 4 Czech and 2 non-Czech.

ASSOCIATION: VÚOSO, Prague

Card 7/7

DLOUHY, Milan, inz., C.Sc.; HOUDEK, Josef, inz.

Grinding mandrels from cemented carbide increase the labor productivity in internal grinding. Stroj vyr 10 no.12:599-602 '62.

1. Vyzkumny ustav obrabecich stroju a obrabeni, Praha.

DLOUKHI, M. [Dlouhy, M.], kand. na tekhn. nauki

Bending strength of hard alloys at higher temperatures.
Mashinostroene 12 no.3:30-32 Mr'63

1. Nauchnoizsledovatelski institut po metalorezheszti masnini i mekhanichna obrabotka, Praga.

DLOUHY, Milan, inz., ScC.; HOUDEK, Josef, inz.

Apparatus for cemented carbide toughness measurement. Stroj vyr 11 no.5:264-265 My '63.

1. Vyzkumny ustav obrabecich stroju a obrabeni, Praha.

DLOUHY, M., inz. CSc.; HOUDEK, J., inz.

Shaping of cuttings by tool oscillation. Strojirenstvi 14 no.5: 360-363, 387 My '64.

1. Research Institute of Machine Tools and Machining, Prague.

DLOUHY, K.

Power amplifier for the JVT 2 one-phase high-frequency telephone. p. 172. SDELOVACI TECHNIKA, Praha, Vol. 2, no. 4, Apr. 1954.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

DLouhý, M.

CZECH

621.314.2.029.5 : 621.372.5 : 621.3.012.8

2680. Theory of the differential transformer. M. DLOUHÝ. *Slaboproudý Obzor*, 15, No. 7, 307–15 (1954) in Czech.

The equivalent circuit of a symmetrical hybrid transformer is considered, its input impedances at all the four pairs of terminals are calculated and the expressions for attenuation in 4 principal directions are derived. A 600Ω hybrid coil, employed in four-wire circuits, is designed. A non-symmetrical transformer and a resistive bridge-circuit are briefly considered.

R. H. SIDOROWICZ

DLouhý, M.

CZECH

621.395.63(

Signal receivers for long-distance tone dialling. M. Louhý. *Slaboproud. Obzor*, 15, No. 12, 553–8 (1954). In Czech.

A signal receiver which converts tone impulses into d.c. dialling pulses should satisfy the following requirements: (1) ready response to tone signals (2·28 kc/s) while being insensitive to the same frequency in speech; (2) high input impedance; and (3) insensitivity to interference from a neighbouring exchange. The Czechoslovak receiver relies on single-tone dialling, protection against the interference from the near end of the line being assured by employing a system consisting of a signal receiver and a blocking receiver at each end. The most modern Czechoslovak receiver, SP60, which is described in some detail (with circuit diagrams) combines the blocking and signal-receiving functions in a single unit and is fed from the 60 V exchange battery, its blocking and signal sensitivities being —3N and —2N, respectively. R. S. SIDDROWICZ

DLouhý, M.

CZECH

621.395.64 : 621.395.44

3125. Problems in the design of unattended repeater stations for the carrier telephony system with 12 or 24 channels, by symmetrical cables without coil loading. M. PLIGRI AND M. DLOUHÝ. *Slaboproudý Obzor*, 16, No. 2, 57–67 (1955) in Czech.

Layout and equipment of a repeater station are discussed from the point of view of the requirements recommended by the C.C.I.F., particular attention being paid to the problem of its uninterrupted operation and the measures against valve and power supply failure. It is thought that the reliability of a repeater station can be substantially increased by employing special valves and by providing an emergency rotary convertor (~220 V), which will feed the equipment from a battery. Methods of fault-finding in and control of the unattended repeaters are reviewed and compared. The paper contains a large number of diagrams and photographs, and 21 references.

R. S. SIDOROWICZ

DLOUHY, V.

New U1, universal telephone amplifier. p. 182.

Vol. 17, no. 4, Apr. 1956
SUDY
Praha, Czechoslovakia

Source: East European Accession List. Library of Congress
Vol. 5, No. 8, August 1956

621.395.724(437)

5073. A NEW DESIGN OF L.F. TELEPHONE REPEATER STATION. M.Dlouhý.

Sdělovací Obzor, Vol. 17, No. 11, 602-9 (1958). In Czech.

Improved methods of laying out telephone repeater stations are surveyed with particular reference to latest trends in Czechoslovakia. A unit consists of three standardized racks. The first carries the cable terminals, repeater coils (plug-in boxes) and some distribution strips. The second carries vertical distribution strips and the third carries two- and four-wire universal amplifiers type U1. There is a great saving of copper and servicing facilities are improved. Some block schematics and photographs are given.

R.S.Sidgreaves

DLOUHY, Miroslav, inz.

Transmission methods for use in telephone carrier systems. Cs spoje 7 no.9:12-16 S '62.

1. Sprava dalkovych spoju, Praha.

DLOUHY, Miroslav, inz.

World telecommunication lines. Cs spoje 8 no.2:7-9 Ap '63.

1. Sprava dalkovych spoju.

DLOUHY, Miroslav, inz.

Use of high frequency symmetrical cables for transmission of more than 24 channels. Cs spoje 9 no.5:4-5 O '64.

1. Research Institute of Telecommunication, Prague.

L 18801-66 EWP(k)/EWP(t) JD/HW

ACC NR: AP6010909 SOURCE CODE: CZ/0032/65/015/010/0773/0776

AUTHOR: Dlouhy, M. (Engineer; Candidate of sciences); Houdek, J. (Engineer)

ORG: Research Institute of Machine Tools and Machining, Prague (Vyzkumny ustav obratecich stroju a obrabeni)

TITLE: Short-time machinability test

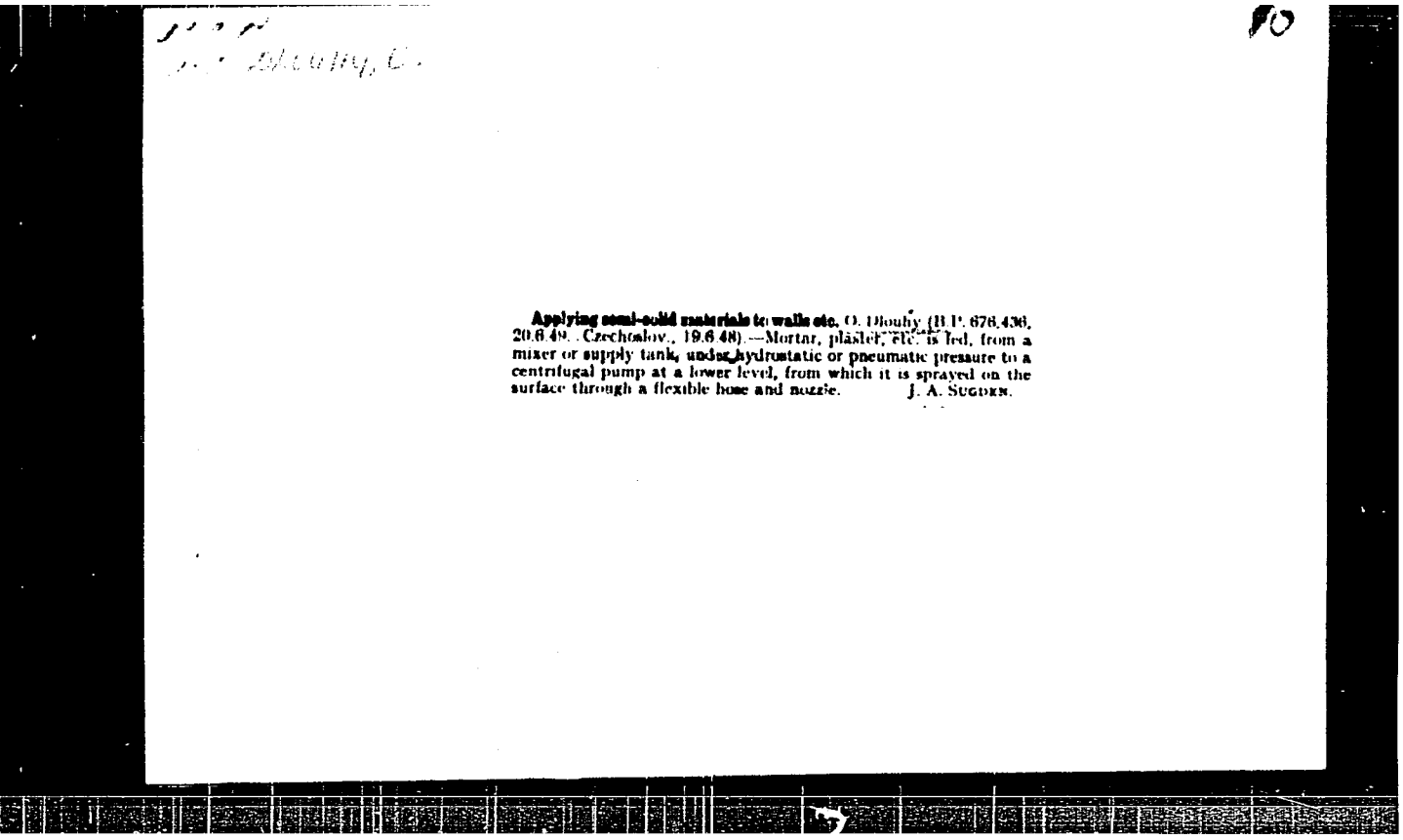
SOURCE: Strojirenstvi, v. 15, no. 10, 1965, 773-776

TOPIC TAGS: steel, metal machining, test method, metal test

ABSTRACT: All standard machinability tests are essentially long-time experiments and do not meet practical requirements where information concerning machinability is needed within the shortest possible time. The authors developed a new short-time machinability test which appears sufficiently reliable in comparison with other methods. Test results indicate that in the machinability of steels there are still considerable reserves for improving the productivity of machining. This paper was presented by Professor F. Kristek, Engineer. Orig. art. has: 4 figures and 3 tables. [JPRS]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 001

Card 1/1 UDC: 620.179.5: 621.9.011: 669.14.018.23



Applying semi-solid materials to walls etc. O. Dlouhý (B.P. 676,436, 20.6.49. Czechoslov., 19.6.48).—Mortar, plaster, etc. is led, from a mixer or supply tank, under hydrostatic or pneumatic pressure to a centrifugal pump at a lower level, from which it is sprayed on the surface through a flexible hose and nozzle. J. A. SUGDEN.

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application. Fats and Oils. Waxes. Soaps and Detergents. Flotation Agents. H.

Abs Jour : Ref Zhur - Khimiya, N 10, 1959, 36655

Author : Jancik, Vl., Dlouhy, O., Chloupek, J.
Inst : -
Title : Recent Trends in the Field of Hydrogenation of Oils and Fats.

Orig Pub : Prumysl. potravin, 1957, 8, No 6, Prill, 1-19.

Abstract : A review. Bibliography of 19 titles.

Card 1/1

h-134

DLOUHÝ, VLASTIMIL

CA

?

Influence of time on the tempering of steel. Ladislav Jeníček and Vlastimil Dlouhý (Kladno, Czech.). *Hutnické Listy* **5**, 149–54(1950). Optimum hardness and dimensional stability after quenching can be obtained by a suitable combination of the tempering temp. and tempering time. Tempering for a longer time at lower temps. is more favorable for obtaining max. hardness and max. dimensional stability than tempering for a short time at a higher temp. However, brief tempering at a higher temp in salt baths does equalize the mech. properties of the surface and the core of the heat-treated part. E. G.

DLOUHY, V.

2383* Chemical Polishing of Metals. Chemické leštění kovů. (Czech.) V. Dlouhý. *Strojírenství*, v. 5, no. 11, Nov. 1955, p. 837-841.

Advantages in polishing of Cu, Al, and their alloys. Precleaning procedures; regeneration of solutions; determination of degree of polish. Photographs, diagrams. 5 ref.

MG

DK

DIOUHY, V.

Electrolytic production of high purity chromium. p.509.
(Hutnicke Listy, Vol. 12, No. 6, June 1957, Brno, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

3614

Z/032/62/012/004/001/007
E073/E535

1.1710

AUTHOR: Dlouhý, V.

TITLE: Heat treatability of steels

PERIODICAL: Strojírenství, v.12, no.4, 1962, 277-282

TEXT: The currently used end-quench test, in which the depth from the hardened phase is measured at which the hardness corresponds to a 50% martensite for the given carbon content, is not an unequivocal criterion. A given hardness can be achieved by high temperature tempering of a component containing different quantities of martensite at the surface and in the core. "Heat treatability", defined as the ability of the steel to achieve certain mechanical properties up to a certain depth, is a better criterion. It depends on the hardenability and on the degree of tempering. In this sense a component is considered "heat treated" if it has a uniform, usually sorbitic, microstructure throughout the cross-section, a high ratio of the yield point σ_{Kt} to the ultimate strength σ_{Pt} and a high enough toughness. The "heat treatability" test is based on determining the mechanical properties of specimens of 15 to 40 mm diameter cut from annealed semi-finished products or surface sections of rods and forgings

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Heat treatability of steels

Z/032/62/012/004/001/007
E073/E535

after heat treatment. For machine parts subjected to tensile, compression and combined stresses it is essential to know the mechanical properties throughout the entire cross-section and therefore the heat treatability is determined by means of cylindrical specimens cut in various directions. F. Šícha (Ref.4: Průmyslové vydavatelství, Praha, 1951) determined by this method the mechanical properties of thirty constructional steels after various degrees of heat treatment. The drawback of this method is the laboriousness of preparation of specimens and the high consumption of material. U. Wyss (Ref.5: Technische Mitteilungen, no.2, 1953) has carried out experiments for establishing the relation between the hardness at various depths and the mechanical properties of cylinders with a variable diameter in the heat treated state. The author of this paper compared the measured mechanical properties of some steels with data extracted from the diagrams published by Wyss. There was good agreement as regards yield point values but considerable differences were found to exist in values relating to plasticity; these differences may be due to the fact that, in order to obtain the required strength,

Card 2/4

Heat treatability of steels

Z/032/62/012/004/001/007
E073/E535

the specimens were tempered from various temperatures, which brought about differences in the plasticity. The new method of testing "heat treatability" consists of utilizing the well established end-quench test for determining directly the mechanical properties along the test specimen. If as a criterion of the heat treatability the ratio σ_{Kt} to σ_{pt} is taken, it is possible to compare the mechanical properties determined along the specimen cut from the end-face with values determined at a distance of 5 mm from the end-face. Experimental results are given for eight grades of steel with compositions as shown in Table 1, using tensile and notch-impact specimens of dimensions as shown in Fig.2. Full details are given on heat treatment and on the changes in the mechanical properties. Utilizing diagrams published by U. Wyss (Ref.5) and J. M. Blanter (Ref.6: 1953, Sovětská věda - Hutnictví, no.4) the end-quench heat treatability test permits solving numerous practical problems encountered in heat treatment of constructional steels. A definite advantage of the method is the very low quantity of material required for the specimens. There are 16 figures and 2 tables.

Card 3/4

KALOC, Jan, dr. CSc.; DLOUHY, Vladimir; FORBRA, Zdenka, inz.

Hydrometallurgical processing of Zn-Pb-Cu collective concentrates.
Rudy 12 no.7/8:324-325 Jl-Ag'64 (MIRA 17:8)

1. Research Institute of Metals, Panenske Brezany.

L 62742-65 EWA(d)/EWP(t)/EWP(z)/EWP(b) JD

ACCESSION NR: AP5021406 CZ/0034/64/000/012/0864/0870

AUTHOR: Dlouhy, Vlastimil 55

TITLE: Possibilities of simplification heat treatment and of economic utilization of properties of alloy steels 63

SOURCE: Hutnicke listy, no. 12, 1964, 864-870

TOPIC TAGS: steel, metal heat treatment, metal test, alloy steel, metal property

Abstract /Author's English summary/: Requirements for mass heat treatment of metallurgical and engineering products in mechanized and automated shops are discussed. It is possible to establish 21 categories for heat treatment requirements that include all the steels presently produced in Czechoslovakia. The technique of test bar sampling of quenched and tempered steel products presently used is evaluated, and a new method that would be suitable for all dimensions of the products is

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L 62742-65

ACCESSION NR: AP5021406

2

suggested. Classification of steels into groups based on the average yield value is proposed. At present minimum and guaranteed mechanical values are used as criterion; the new method would allow savings of steel and of alloying metals. Orig. art. has: 10 figures, 2 tables, 1 graph.

ASSOCIATION: SONP, Kladno

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NR REF SOV: 000 OTHER: 003 JPRS

Card 2/2

DLOUHA, V.; NEUWIRTHOVA, J.; MELOUN, B.; SORM, F.

On proteins. Pt.96. Coll Cz Chem 30 no.5:1705-1712 My '65.

1. Institute of Organic Chemistry and Biochemistry of the Czechoslovak Academy of Sciences, Prague and Leciva, Prague. Submitted June 26, 1964. 2. Advisory Board Chairman, "Collection of Czechoslovak Chemical Communications" (for Sorm).

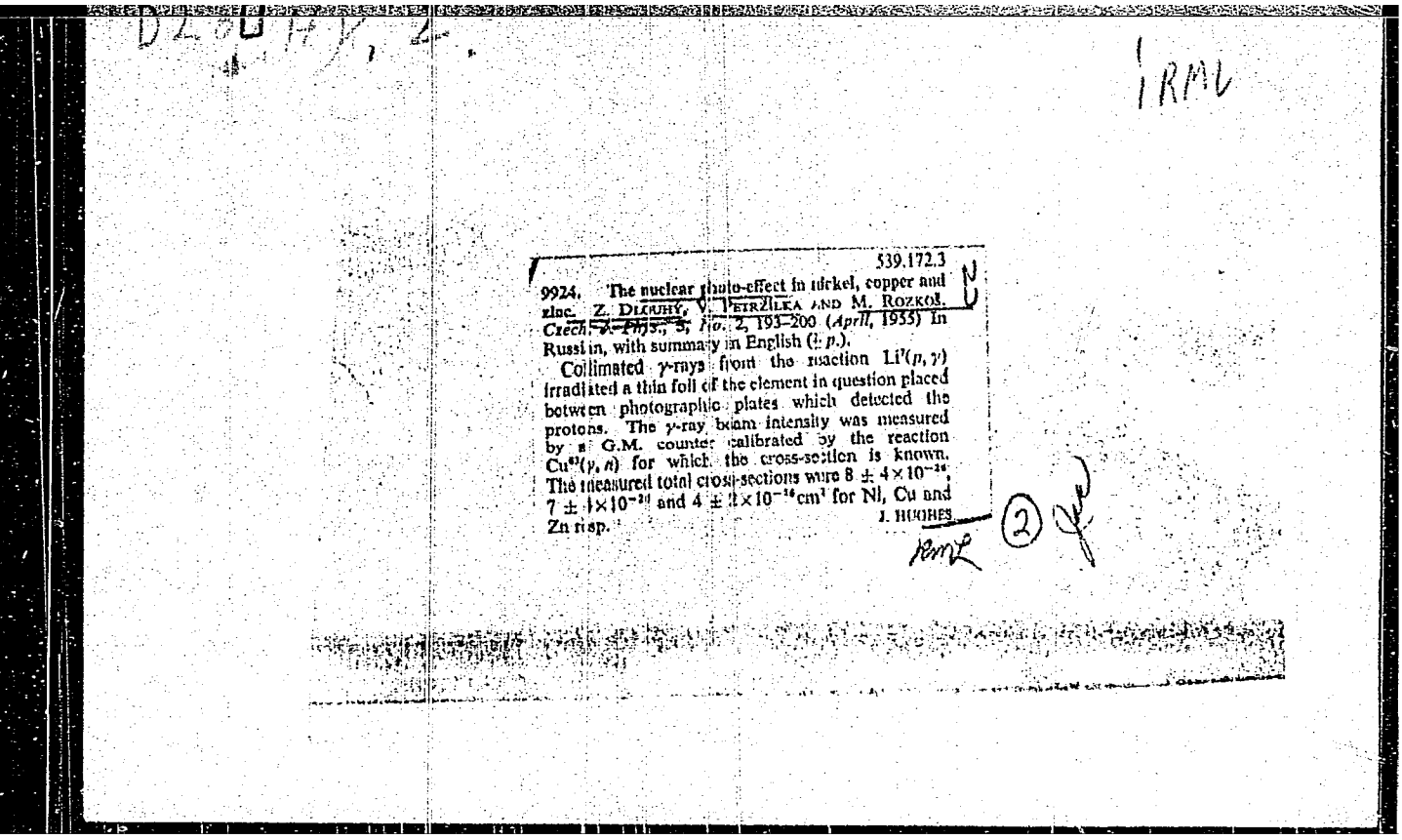
MEYEROVICH, Ya.M.; DLOUGIY, V.V.

Hydraulic sorting of wastes from the crushing of limestone without using suction dredge feeding of starting material. Stroi.mat. 10 no.8:24-26 Ag '64. (MIRA 17:12)

KLONOWICZ, Maria; DLOUHY, Wojciech; RADWAN Leszek

A case of pancytopenia associated with pregnancy toxemia. Gin. polska 31 no.3:333-338 My-Je '60.

1. Z I Zakladu Chorob Wewnetrznych Studium Doskonalenia Lekarzy A.M. Kierownik: prof. dr med. W.Hartwig
(ANEMIA APLASTIC in pregn)
(PREGNANCY TOXEMIAS compl)



539.172.3

9924. The nuclear photo-effect in nickel, copper and zinc. Z. DLOUHÝ, V. PETRŽILKA AND M. ROZKOŠ. *Czech. J. Phys.*, 5, *No.* 2, 193–200 (*April*, 1955) In Russian, with summary in English (½ *p.*).

Collimated γ-rays from the reaction $Li^7(p, \gamma)$ irradiated a thin foil of the element in question placed between photographic plates which detected the protons. The γ-ray beam intensity was measured by a G.M. counter calibrated by the reaction $Cu^{63}(p, n)$ for which the cross-section is known. The measured total cross-sections were $8 \pm 4 \times 10^{-26}$, $7 \pm 1 \times 10^{-26}$ and $4 \pm 2 \times 10^{-26}$ cm² for Ni, Cu and Zn resp.

J. HUGHES

DLOUHÝ Z.

19

Cleaning of surfaces contaminated with radioactive isotopes. Zdeněk Dlouhý, Jaroslav Kutzendörfer, and Jaromír Malý (Czech. Acad. Sci., Prague). *Jaderná energie* 3, 65–73(1957).—The surfaces tested were: Al, brass, glass, rubber floor tile, oil varnish, removable varnish (chlorinated poly(vinyl chloride)), wood, canvas (cotton), poly(vinyl chloride) cloth. The contaminating soln. contained 1 to 5 μc./ml. of a mixt. of Ce^{141}, Ce^{144}, Sr^{89}, Y^{91}, Zr^{95}, Nb^{95}, I^{131}, La^{140}, and Cs^{137}. After 0.1 to 1.0 ml. of this was added to the surface, it was dried under an infrared lamp at 15 cm. distance, at 60–70° for 10 min. Glass had to be 1st cleaned with H_2SO_4–CrO_3 and rinsed thoroughly with water, before treatment with the contaminating soln. The activity was detd. with a Geiger counter with a mica window. Decontamination was performed by attaching the samples to a 78-r.p.m. stirrer and rotating them in a beaker contg. the decontaminating agent for 1 min., then for 0.5 min. in fresh decontaminating agent, then rinsing with water for 2 sec. The decontaminating agents were: Distd. water, tap water, HCl, H_2SO_4, HNO_3, HF, H_3BO_3, NH_4Cl, NaCl, Na_3PO_4, Na_2HPO_4, $NaHCO_3$, Na_2CO_3, K_2CO_3, HOAc, $(CO_2H)_2$, tartaric acid, citric acid, the NH_4 salts of the last 4 acids, various detergents, alone or in combination with the other solns., Turkey red oil, Much's reagent (10% Na_3PO_4, 1–2% Na_2CO_3, 0.3–0.5% Neokal—a detergent), $AgNO_3$, Na_2SO_3, $KMnO_4$ + Na_2SO_3. Some were treated at a series of concns. For each, the % decontamination was calcd. The temp. of decontamination was usually 20° but was 80 or 100° in some cases. The best decontaminating agents were the inorg. acids at concns. from 0.1 *M* to 0.001 *M*, which achieved more than 90% decontamination with all surfaces except wood, which was difficult to decontaminate with any soln., because of its porosity. Only I^{131} was easier to remove with alk. solns. Water was poor except for glass, which was cleaned better with cold than with hot water. Detergents were disappointing. H. Newcombe

4

COUNTRY : Czechoslovakia B-15
CATEGORY :

ABS. JOUR. : RZKhim., No. 22 1959, No. 77968

AUTHOR : Dlouhy, Z. and Maly, J.
INST. : Not given
TITLE : The Kinetics of the Sorption of Mixtures of Radioisotopes at Surfaces

ORIG. PUB. : Jaderna Energie, 4, No 12, 387-388 (1958)

ABSTRACT : The authors have investigated the adsorption of the radioisotopes Ca 45, Zn 65, Po 210, and their mixtures on steel strips from hydrochloric acid solutions and their desorption when the strips are immersed in solutions containing desorbing agents. The kinetics of the adsorption and of the desorption can be described by the following equations: $I_A = \lambda C_{z_1}(1-\exp(-z_1 t) + \lambda C_{z_2}(1-\exp(-z_2 t) + \lambda C_{z_3}(1-\exp(-z_3 t)$: $I_D = \lambda C_{z_1}(1-\exp(-z_1 t) + \lambda C_{z_2}(1-\exp(-z_2 t) + \lambda C_{z_3}(1-\exp(-z_3 t) + \lambda \Gamma_\infty$ [notation unclear], where

CARD: 1/3

COUNTRY : Czechoslovakia
CATEGORY : B-13

ABS. JOUR. : RZKhim., No. 22 1959, No. 77968

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : I is the activity of the strips, λ is the decay constant, and C_{zi}, z_i, and Γ_∞ are constants. The three exponential terms in the equations correspond to the three different first-order processes taking place, which depend on the degree of coverage of the surface of the strips by the ions present in the sorption solution. The process with a mean $T_{\frac{1}{2}}' = 4$ hrs depends on the Fe(2+) concentration; the process with $T_{\frac{1}{2}}'' = 2$ min depends on the H^+ concentration. The

CARD: 2/3

COUNTRY : Czechoslovakia
CATEGORY : B-13

ABS. JOUR. : RZKhim., No. 22 1959, No. 77968

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : process characterized by a value of $T_{\frac{1}{2}}$ = 45 min depends neither on the chemical composition of the solution nor on the type of stirrer used. When the adsorbing are sufficiently dilute, no competition between the individual radioisotopes is observed. Of practical interest is the possibility of lowering $T_{\frac{1}{2}}$ for radioactive Zn(2+) by the addition of a small quantity of Fe(2+) to the solution; this makes possible the acceleration of the deactivation of the strip after desorption in acid solutions.

Ya. Satunovskiy

CARD: 3/3

DLOUHY, Z. [Dlouhy, Z.]

Pulse method for measuring the age of neutrons in graphite. Atom. energ. 9 no.3:182-188 S 60. (MIRA 13:8)

1. Institut yadernykh problem, Chekhoslovatskaya Akademiya nauk, Praga, Chekhoslovakiya.
(Neutrons)

BAYER, R.; CERVENA, J.; DLOUHY, Z.; SCHAFERLINGOVA, W.

Measurement of diffusion constants in light water by the impulse method. Cs cas fys 11 no.6:480-488 '61.

1. Ustav jederneho vyzkumu, Ceskoslovenska akademie ved, Rez.

(Nuclear physics)

L 56704-65 EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EPR Pr-4/Ps-4/Pu-4 WW
ACCESSION NR: AP5018829 CZ/0038/64/010/008/0291/0292

40
39
B

AUTHOR: Dlouhy, Zdenek

TITLE: Study of the sorption properties of pyroclastic rocks used for the decontamination of radioactive waste waters 44

SOURCE: Jaderna energie, v. 10, no. 8, 1964, 291-292

TOPIC TAGS: nuclear decontamination, nuclear decontamination agent, water purification, silicate, adsorption

Abstract: Classification of a large group of natural silicates (pyroclastic rocks) was made according to the properties affecting the decontamination properties of the materials. In static experiments distribution of microcomponents as a function of their concentration was investigated; the microcomponents contained Cs, Sr, Ce, Zr, and Cb. In dynamic experiments influence of competitive ion concentration, flow rates, column length, and saturation curves was studied. Ryodacite tuff from Nizny Hrabo-

Card 1/2

L 56704-65
ACCESSION NR: AP5018829

vec was the best material for adsorption of Cs from wastes; in the absence of Ca ions, Sr ions are adsorbed as well as Cs ions. The article is an abstract of author's thesis published by the Institute for Nuclear Research of the Czechoslovak Academy of Sciences. An English abstract is printed.

ASSOCIATION: Ustav jaderneho vyzkumu CSAV, Rez (Institute of Nuclear Research, CSAV)

SUBMITTED: 00 ENCL: 00 SUB CODE: NP, GC

NR REF SOV: 000 OTHER: 000 JPRS

Card 2/2

L 41792-65 EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EPR Pr-4/Ps-4/Pu-4

ACCESSION NR: AP5013584 CZ/0038/65/000/003/0087/0091

AUTHOR: Dlouhy, Zdenek (Dlouhy, Z.)

TITLE: Investigation of adsorption properties of pyroclastic rocks for the purposes of radioactive waste water decontamination. I. The classification of pyroclastic rocks

SOURCE: Jaderna energie, no. 3, 1965, 87-91

TOPIC TAGS: radioactivity, nuclear decontamination, nuclear decontamination agent, water sanitation, adsorption, silicate

ABSTRACT: Classification of a great group of natural silicates, pyroclastic rocks, on the basis of their adsorption properties and further criteria for their applicability in radioactive waste water decontamination was carried out. Materials, which maximally met all requirements, were investigated in more details. The best material, rhyodacite tuff from Nizny Hrabovec, was found to be very convenient for radiocesium adsorption from waste waters. The adsorption of radiostrontium under certain conditions /in the absence of calcium ions in treated solutions/.

Card 1/2

L 48292-65
ACCESSION NR: AP5013584

may be realized as well. The possibility of the prompt utilization of the above mentioned material in pilot plant or on full operation scale is feasible.
Orig. art. has: 6 tables.

ASSOCIATION: Ustav jaderneho vyzkumu CSAV, Rez (Institute of Nuclear Physics, CSAV)

SUBMITTED: 00 ENCL: 00 SUB CODE: NP, GC

NO REF SOV: 000 OTHER: 003 NA

Card 2/2

L 7864-66 EWT(m) DIAAP

ACC NR: AP6001207 SOURCE CODE: CZ/0038/65/011/006/0207/0212

AUTHOR: Dlouhy, Zdenek--Dlougi, Z. 36 B

ORG: Institute of Nuclear Research, CSAV, Rez (Ustav jaderneho vyzkumu CSAV)

TITLE: Sorption properties of pyroclastic rocks for the decontamination of radioactive waste water. Part 2. Study under static conditions. 19 14

SOURCE: Jaderna energie, v.11, no.6, 1965, 207-212

TOPIC TAGS: nuclear decontamination, nuclear decontamination agent, water purification, radiation chemistry

ABSTRACT: It was previously found that rhyodacite tuff from Nizny Hrabovec is the most suitable pyroclastic rock for the decontamination of radioactive waste water. Therefore, this mineral was investigated in greater detail, and the dependence of the adsorption of the radionuclide ion on the Ca^{2+} and Na^{+} ions present was determined. The results obtained were in good agreement with the published data, except for the value of the distribution coefficient for Cs. It was concluded that for Cs the proportionality condition, as reported in the literature, of ion activities and molar fractions of these ions in solid phase is probably invalid. The work was presented by L.Berak. Orig. art. has: 14 figures, 1 table. [NA]

SUB CODE: 18, 07 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 003

Card 1/1 UDC: 621.039.73: 541.183.5

L 09874-67 RO
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TITLE: Decontamination ability and corrosion action of some decontamination solutions 6

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ABSTRACT: Corrosion tests and tests to show the decontamination properties of stainless steel and carbon steel were conducted with various decontaminants. Special attention was given to the scale present on the surface of the steel. The scale could not be removed completely from the surface of the metal. The use of an alkaline permanganate solution did not result in easier dissolution of the oxide layer during the next step of the decontamination process with citrate solution. The effectiveness of all decontaminants tested was satisfactory with the exception of the sulfamic acid solution for both types of steel,

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